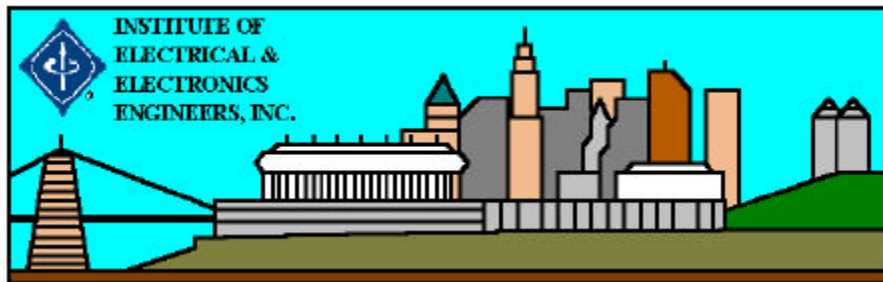


IEEE CINCINNATI  
SECTION  
NEWSLETTER  
MAY 2001



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**MAY MEETING**  
**HARRIS TV PRESENTATION & TOUR**

**DATE :** Thursday, May 24, 2001

**PLACE :** Harris Broadcast Communications Headquarters  
4393 Digital Way  
Mason, Ohio (see page 2 for directions and map)

**TIME :**

|         |                                                                       |
|---------|-----------------------------------------------------------------------|
| 7:00 PM | Arrival at Harris                                                     |
| 7:30 PM | Overview of Harris Corporation and Broadcast Communications Division  |
| 7:50 PM | The conversion from analog to digital television in the United States |
| 8:15 PM | Demonstration of High Definition, Digital Television                  |
| 8:30 PM | Tour of Harris Engineering Laboratories                               |
| 9:00 PM | Refreshments                                                          |

Please call the Cincinnati Section Voice Mailbox at 513-629-9380, by **Noon, Tuesday, May 22, 2001** if you plan to attend. Please leave your **Name, IEEE Member Number,** and **a daytime telephone number.**

Harris Corporation is an international communications equipment company focused on providing product, system, and service solutions that take its customers to the next level. The company provides wireless, broadcast, government, and network support products and systems for global communications markets. Harris has set the pace for television's transition from analog to digital technology. The RF Test Bed that they developed for the Advanced Television Test Center in 1990 enabled all digital television systems proposed for the United States to be equitably evaluated. Harris also is a leader in technology for the European-standard Digital Video Broadcasting (DVB-T) market

**DIRECTIONS:** See Page 2 for directions and map.

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**CHAIR'S MESSAGE**

*by Tom Grau, Section Chair*

Last month's meeting featured Mr. James Watson, President of Watson Associates, who presented a "How to" slide discussion of effective speaking communication. The presentation centered around the "tools of the trade" available in Microsoft's Power Point and include color, sound effects and visual effects. A number of pointers were recommended to help make the speaker's message clear. A sincere thanks is extended to Jim Watson for his effort on behalf of the Cincinnati Section of the IEEE. A special thanks is given to James Everly for his effort in coordinating the meetings at the University of Cincinnati and at the Evendale Buffet and supporting the students who attended these presentations.

*(Continued on Page 3)*

**Directions from Cincinnati/Northern Kentucky Airport (CVG):**

I-275 E to I-71 N (8 miles)

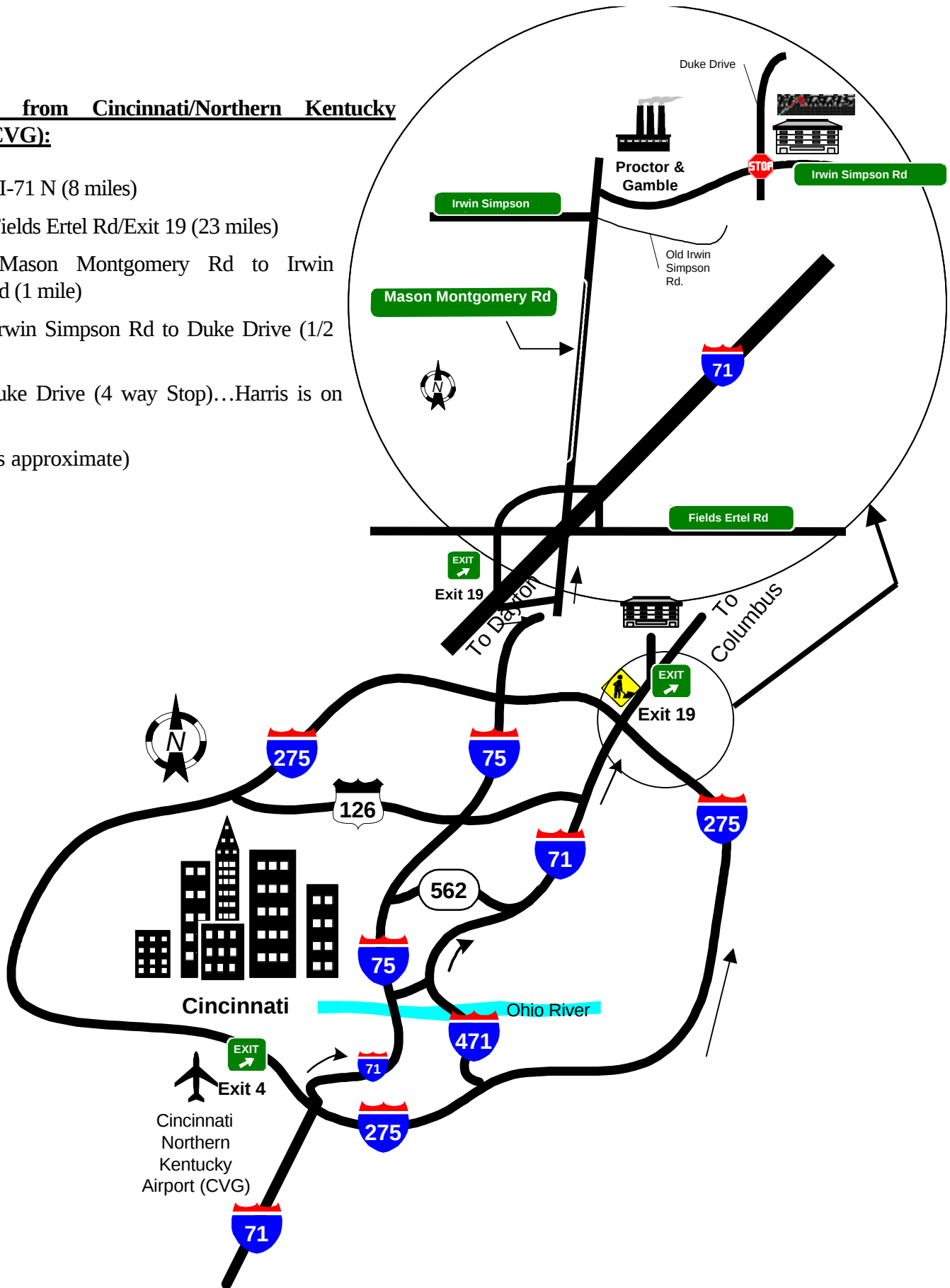
I-71 N to Fields Ertel Rd/Exit 19 (23 miles)

Left on Mason Montgomery Rd to Irwin Simpson Rd (1 mile)

Right on Irwin Simpson Rd to Duke Drive (1/2 mile)

Left on Duke Drive (4 way Stop)...Harris is on the right

(Mileage is approximate)



## **TO SUBSCRIBE TO THE ELECTRONIC NEWSLETTER**

This newsletter is only available via e-mail or the Section's web page at <http://ieee.cincinnati.fuse.net/> with the exception of new Section members (one issue only) or members who have specifically requested a copy be delivered through the U. S. Mail.

If you are a new Section member and would like to get this newsletter electronically, please contact Bob Morrison (Editor) at 513-287-3697 or by e-mail at [j.r.morrison@ieee.org](mailto:j.r.morrison@ieee.org). Provide your name and member number. In case there are questions, please include a daytime telephone number as well.

If you would like the "Snail Mail" version, you must contact Bob Morrison via the above means or call the Section's voice mail at 513-629-9380.

### **CHAIR'S MESSAGE**

(Continued from Page 1)

Please give serious consideration to attending the discussion and demonstrations of High Definition Television (HDTV) to be presented at Harris Broadcast Communications, Inc. Following the demonstration, there will be a tour of the Harris facilities. Come and get your questions answered regarding this new broadcast media, HDTV. (Details are to be found elsewhere in this month's Newsletter.)

Let me again remind you that the Executive Committee's Mission is to serve the membership of this Section and to support the Societies to which our members belong. Our Vision for our Section is that we enrich our member skills through program presentations of current technologies and issues.

The Newsletter is not published over the Summer. Look for the September issue to get the details for the resumption of the Cincinnati Section meetings.

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### **NEW MEMBERS**

The following individuals are IEEE members who are new to our Section:

|                     |                      |
|---------------------|----------------------|
| Suzanne Bergmeister | Steven J. Klatte     |
| Jesse E. Brand      | Dilip B. Kulkarni    |
| James E. Buchanan   | Ron Leitner          |
| Matthew T. Buelow   | Cindy I. Meisner     |
| Vincent K. Chan     | Heinrich S. Montana  |
| Travis F. Cribbet   | Bryan P. Parker      |
| Ming Dong           | John Perkins         |
| Paul E. Gerth       | Darryl C. Price      |
| John Grubb          | Jacqueline R. Rettig |
| Wen-Ben Jone        | Amit Saluja          |
| Nguyen Khiet        | Robert H. Tedford    |

We wish to extend our welcome to all of our Section's new members!!!

## Section Meeting - Tour of Kings Island

**ATTENTION**  
***Retired Engineers and Scientists!***  
***Consider these RESC Activities in May!***

**VIEW THE FULL SCHEDULE AT: <http://home.fuse.net/Engineering/RESC.htm>**

## NEXT MEETING

**Program:** **Trends in Medical Surgical Laser Therapy**

**Speakers:** **Judy Chamberlain, RN, MSN**, Consultant and Lecturer on Laser Safety. As former Division Director of Nursing and the Laser Safety Officer at Christ Hospital, Judy will describe structure and function of lasers and tissue response, with examples of primary uses; also, the hazards and controls necessary for safety of patients and providers.

A bus tour of the site of this \$290 million per year project which includes structure and process facilities demolition, aquifer restoration, and low level nuclear waste handling and preparation for removal.

**RESERVATIONS and INFORMATION** available by telephoning RESC contacts at either (513) 231-7831 or (513) 751-8035. Information also on web <http://home.fuse.net/Engineering/RESC.htm>

**University of Cincinnati**  
**OMI College of Applied Science**  
**Electrical & Computer Engineering Technology**

The ECET department has need for part-time instructors for both day and evening classes for all areas of electrical and computer engineering technology. These include: circuit analysis, analog and digital electronics, communications, microprocessors, computer systems, computer networks, PLC's and control systems.

Classes are offered on a quarter schedule. Evening classes meet one night per week for 3 hours. Lecture class instructors usually also teach the laboratory class which meets on a second night.

Applicants should have a minimum of bachelor's degree in electrical or computer engineering or engineering technology, or closely related fields, along with industrial experience.

Interested persons should contact:     Dennis Farrell  
                                                         Department Head, ECET  
                                                         University of Cincinnati  
                                                         2220 Victory Pkwy  
                                                         Cincinnati, OH 45206  
  
                                                         Phone: 556-6558  
                                                         Email: farrell@mozart.cas.uc.edu

Employment will be consistent with the university's equal opportunity, non- discrimination guidelines and other employment policies.

**Scanning the Past: A History of Electrical Engineers from the Past**

*Copyright 1991 IEEE Reprinted with permission from the IEEE publication, "Scanning the Past" which covers a reprint of an article appearing in the Proceedings of the IEEE Vol. 79, No. 8, August 1991*

**Charles E. L. Brown and Power Transmission from Lauffen to Frankfurt in 1891**

Last year the IEEE Board of Directors voted to designate 1991 as the centennial year for the industrial use of alternating current power. Among the reasons for selecting 1991 was the successful and well-publicized transmission of polyphase power beginning August 24, 1891 from Lauffen, Germany, to the site of an international electrical exhibition in Frankfurt, a distance of about 175 km. This demonstration provided convincing evidence of the economic and technical feasibility of supplying power generated at remote locations to industrial centers.

The Lauffen-Frankfurt project was essentially a joint venture of a German electrical company, Allgemeine Elektrizitats Gesellschaft (AEG) and a Swiss company, Maschinenfabrik Oerlikon. Michael O. Dolivo-Dobrowolsky of AEG designed a polyphase motor that drove a pump supplying an artificial waterfall at the Frankfurt exhibition. An Oerlikon engineer, C. E. L. Brown, designed an innovative polyphase generator which was driven by a water turbine on the Neckar River in Lauffen. He also designed an oil-insulated transformer for the project. A portion of the power brought from Lauffen was used for an illuminated sign with 1000 incandescent lamps.

The well known British engineer, William E. Earthen, who attended the Frankfurt exhibition wrote that it had shown engineers that towns far from water power sources might become industrial centers. He commented that "it is, indeed, as if it had been shown that such towns stood on an inexhaustible field of smokeless, dustless coal." The demonstration convinced the city of Frankfurt to adopt alternating current for its municipal power plant which began operation in 1894 and also influenced the adoption of alternating current at the large hydroelectric plant at Niagara Falls, New York, which began operation in 1895.

C. E. L. Brown (1863-1924) was born in Winterthur, Switzerland, His mother was Swiss and his British father worked in Switzerland as a consulting engineer and designer of steam engines. Brown was educated in Swiss schools and served an apprenticeship in a machine shop in Basel before joining the Oerlikon company in 1884. Two years later he became director of the electrical department at Oerlikon. He designed a variety of direct and alternating current machines for Oerlikon and was awarded a grand prize for a dynamo design at the Paris exhibition in 1889. A biographical sketch of Brown published in a technical periodical in 1891 described him as being "one of the brightest and best known of the continental electricians [with] a reputation of international importance."

In 1891, Brown and Walter Boveri, also an engineer with Oerlikon, decided to leave Oerlikon and form their own electrical manufacturing company, Brown, Boveri, and Company in Baden, Switzerland. The new firm received the contract to build the municipal power plant in Frankfurt and acquired rights to manufacture steam turbines covered by the patents of Charles Parsons. American versions of the Lauffen type alternator were introduced by General Electric in 1897 and later by the Westinghouse Company and Allis-Chalmers.

Brown-Boveri grew into one of the world's leading manufacturers of power machinery. In 1987, Brown-Boveri merged with Allmanna Svenska Elektriska Aktiebolaget (Asea) of Sweden to become reportedly "the world's largest electrotechnical concern, Asea Brown-Boveri." In April 1988 Asea Brown-Boveri and Westinghouse reached an agreement to engage in joint ventures in power generation and distribution. These developments have raised concern over the U.S. becoming increasingly dependent on non-U.S. firms for electrical power machinery and related apparatus. Similar concerns were voiced a century ago when Westinghouse was selected instead of Brown--Boveri to supply the generators for the first power plant at Niagara Falls.

*James E. Brittain  
School of History, Technology, and Society  
Georgia Institute of Technology*

### **HELP NEEDED IN DOCUMENTING HISTORY OF THE CINCINNATI SECTION**

Were you a former chairman or officer of the Cincinnati Section of IEEE? If you were and have files on or remembrance of the section's activities, I would like to hear from you or receive a reply by mail or E-mail on the following:

- When were you chairman or an officer, and position you held if not chairman?
- Who preceded you and who followed you in the position?
- What was the average attendance at the meetings?
- Activities such as working groups or study groups?
- Significant people and events?
- Any AIEE vs. IRE rivalry?
- How well did the section serve the membership? Did the section enrich the members skills or stimulate learning?
- Favorite program or activity?
- Especially needed is information in the sixties, seventies and early eighties

I can be reached by mail at R.J. Reiman, 5263 Pro's Drive, West Chester, Ohio 45069-1880 and by E-mail at [rj.reiman@ieee.org](mailto:rj.reiman@ieee.org)

Thanks for your help!  
Dick Reiman

## **There's a Direct Channel to Specifiers and Purchasers of Electrical and Electronic Equipment and Services in Greater Cincinnati...**

### **The IEEE Cincinnati Section Newsletter !!!**

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**<http://ieee.cincinnati.fuse.net/>**

**If you are interested in placing an ad, or if you have questions, please contact:**

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### **The IEEE Cincinnati Section Executive Committee** **Member Names and Phone Numbers**

Cincinnati Section Voice Mail

Section Web Page

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Laurie Tappel - Vice Chair / PACE

Orest Melnyk - Treasurer

Allison Santoro - Secretary

Steve Olenick - Member-At-Large

Mark Strong - Member-At-Large

Jack Beckmeyer - Arrangements Chairman

Randy Holt – Membership

Bob Morrison - Editor

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